DB2 GUIDED SLIDE

25-100mm STROKE DB2:

- RAP OR RIGID COUPLER
- TOOL MOUNTING SURFACE
- NAAMS STOPS OR WELKER SMART STOPS
- MOUNTING PLATE
- WELKER 50mm BORE PNEUMATIC CYLINDER
- 1/8" NPT or G1/8 PORTS
- SOLID STATE CYLINDER SWITCH

125-150mm STROKE DB2:

APPLICATIONS:

- RETRACTABLE PINS & LOCATORS
- PUSHERS
- CROWDERS
- THRUSTERS
- SMALL LIFTERS
- SLIDES

RELEASED: 8/30/21
ORDERING INFORMATION
NOTE: ALL BOXES MUST BE FILLED IN FOR A COMPLETE PART NUMBER

Stroke
075 25-150mm
(in 25mm increments)

Coupler
A Rap (shortens nominal stroke by 2mm)
B Rigid

Actuator
01 Pneumatic - Single Rod - NPT
02 Pneumatic - Single Rod - G Port

Switch
00 No switch
LX See Welker Cylinder Switch Chart
P1 Welker Smart Stops

Additional Retract Shims ~ Whole mm

Additional Retract Shims ~ Quarter mm

Additional Extend Shims ~ Whole mm

Additional Extend Shims ~ Quarter mm

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SHIM CHART

<table>
<thead>
<tr>
<th>WHOLE MILLIMETER CODES</th>
<th>QUARTER MM CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>THK (mm)</td>
<td>CODE</td>
</tr>
<tr>
<td>0 0</td>
<td>8</td>
</tr>
<tr>
<td>1 1</td>
<td>9</td>
</tr>
<tr>
<td>2 2</td>
<td>10</td>
</tr>
<tr>
<td>3 3</td>
<td>11</td>
</tr>
<tr>
<td>4 4</td>
<td>12</td>
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<td>5 5</td>
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<td>6 6</td>
<td>14</td>
</tr>
<tr>
<td>7 7</td>
<td>15</td>
</tr>
</tbody>
</table>

Cylinder Switches

<table>
<thead>
<tr>
<th>Switch</th>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3</td>
<td>SWITCH L3*</td>
<td>Welker</td>
<td>4-Wire, 4-Pin, DC (PNP) M12 X 1 Quick Disconnect</td>
</tr>
<tr>
<td></td>
<td>L3 switch is weld field immune, comparable to World Switches. Dual sensor switch, 1 per cylinder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5</td>
<td>MKS113</td>
<td>ifm Efector</td>
<td>3-Wire, 4-Pin, DC (NPN) M12 X 1 Quick Disconnect</td>
</tr>
<tr>
<td></td>
<td>Single sensor switch, 2 switches per cylinder</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard Switch Option - All other options may affect price and delivery
*Note that some mid and low frequency DC resistance applications (i.e. aluminum resistance welding applications) may cause a fault. In these applications, it is recommended that the sensor be ignored/bypassed during the welding cycle.

(800) 229-0890 www.welkerproducts.com
GENERAL DIMENSIONS: 25 to 100mm STROKES

- 50mm BORE CYLINDER
- 2X 1/8 NPT OR G PORT
- 2X WELKER SMART STOPS OR NAAMS STOPS
- REMOVE STOP FOR ADDITIONAL STROKE
- 100 STROKE OPTION SHOWN

DB2 UNIT WEIGHTS

<table>
<thead>
<tr>
<th>STROKE</th>
<th>25mm</th>
<th>50mm</th>
<th>75mm</th>
<th>100mm</th>
<th>125mm</th>
<th>150mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT</td>
<td>30 lbs</td>
<td>28.5 lbs</td>
<td>33 lbs</td>
<td>31.5 lbs</td>
<td>36 lbs</td>
<td>34.5 lbs</td>
</tr>
</tbody>
</table>

(800) 229-0890 www.welkerproducts.com
GENERAL DIMENSIONS: 125 & 150mm STROKES

<table>
<thead>
<tr>
<th>DB2 UNIT WEIGHTS</th>
<th>25mm</th>
<th>50mm</th>
<th>75mm</th>
<th>100mm</th>
<th>125mm</th>
<th>150mm</th>
</tr>
</thead>
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<td>34.5 lbs</td>
</tr>
</tbody>
</table>

(DO NOT SCALE DRAWING)
WELKER SMART STOP does all stopping & sensing functions in one part. SMART STOP minimizes engineering, field set up and operator adjustment time.

WELKER SMART STOP eliminates:
- Need for separate mounts, brackets & flags.
- Need for switch adjustments when shimming.
- Improper adjustment of outboard switches.
- Outboard switch vibrating loose in bracket.
- Protecting outboard proxes from being stepped on or bent in tools.

MODEL NO:
ASC020-PD FOR CROWNED, DRILL & C’BORE FOR M10 SHCS + DC SWITCH
ASC021-PD FOR CROWNED, M10X1.5 TAP + DC SWITCH
ASF020-PD FOR FLAT, DRILL & C’BORE FOR M10 SHCS + DC SWITCH
ASF021-PD FOR FLAT, M10X1.5 TAP + DC SWITCH
Wipers: The wiper is a custom molded moly impregnated urethane wiper. Welker recommends changing the wiper yearly. Specific applications may require more or less frequent wiper service.

Stroke: The stroke accuracy is limited to that of the cylinder. Normal cylinder stroke accuracy is ± .015” (0.38mm). Rap couplings cause the unit to be 2mm less than the nominal stroke of the cylinder. The rap allows the cylinder to accelerate without load, acting like a slide hammer. The impact of the coupler helps free tooling from a bound condition, similar to a dowel puller.

Welker cylinders do not require lubrication.

Switch: DB2 is available with solid state cylinder switch or Welker Smart Stop.

Repeatability: Unit utilizes a full contact bearing surface for high repeatability. Repeatability within ±.002” (0.05mm) part to part is achievable.

Wear: Defined as variance in position under load over time. Shot pin tests indicate maximum wear of .002” wear at 3 million cycles.

Loading and Deflection: Maximum deflection is ±.005” and is measured at the end of the ram up to the specified strokes and up to the loads and distances as shown below. Longer extensions can be used at lower tolerances and loads. Tooling mounted closer to the body exhibit less deflection. For applications with longer strokes and higher loads, consult Welker.